

Ally
Court

of the storage time can be corrected properly. In such a manner, correction in accordance with conditions of the imaged picture can be made.


REMARKS

The specification has been amended to correct errors of a grammatical nature.

Entry of the preliminary amendments and examination of the application is respectfully requested.

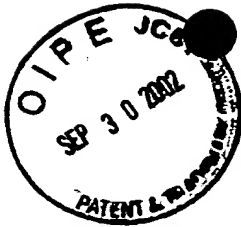
To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (500.40399X00) and please credit any excess fees to such deposit account.

Respectfully submitted,



Melvin Kraus
Registration No. 22,466
ANTONELLI, TERRY, STOUT & KRAUS, LLP

MK/cee
(703) 312-6600



500.40399X00
S.N. 09/917,705

VERSION WITH MARKINGS TO SHOW CHANGES MADE

RECEIVED

IN THE SPECIFICATION:

OCT 02 2002

Page 4, please amend the paragraph beginning at line 22 as follows: Technology Center 2600

The present invention is achieved on the basis of the Inventors' discovery that a video signal level of a normal pixel is the same degree as video signal levels of surrounding pixels thereof in an overwhelming majority and accordingly a value of the video signal level of the normal pixel is the same degree as a average value of the video signal levels of the surrounding pixels, whereas, for example, when a white ~~noise~~ defect occurs in a video due to a defective pixel, a value of a video signal level (defect signal level) of the defective pixel (pixel causing white ~~noise~~ defect) is relatively larger than an average value of video signal levels of the surrounding pixels and a difference value (difference) obtained by subtracting the average value from the value of the defect signal level is also large. Further, the present invention is based on the inventors' further discovery that when a defective pixel is present, only one of a plurality of pixels in the corresponding same image-pickup position among a plurality of solid-state image-pickup devices corresponding to spectral lights for R, G and B in the image-pickup apparatus may be defective, that is, two or more pixels of them may be not defective simultaneously.

Page 11, please amend the paragraph beginning at line 18 as follows:

Description is now made to a general situation in which the inventive defective pixel detecting method may be suitably applied in the case where a white ~~noise~~ defect occurs in a video image due to a defective pixel.

Page 11, please amend the paragraph beginning at line 23 as follows:

A defect signal level of a defective pixel causing a white ~~noise~~ defect appears as a peak component having a signal level higher than video signal levels of

surrounding pixels thereof. Accordingly, a value of the video signal (defect signal) level of the defective pixel causing the white noise is relatively larger than an average value of the video signal levels of the surrounding pixels and a difference value (difference) obtained by subtracting the average value from the value of the defect signal level is also large similarly.

Page 13, please amend the paragraph beginning at line 1 as follows:

Further, for example, when it is assumed that a certain inspected pixel of an R channel is a white ~~noise-defect~~ causing defective pixel, the possibility that any one or both of pixels of G and B channels at the image-pickup point of the incident (imaging) light corresponding to the inspected pixel of R channel are also defective similarly to the inspected pixel of the R channel is very small. That is, it can be safely said that only one pixel of the R, G and B channel pixels corresponding to any image-pickup point in the incident light is defective at the most.

Page 13, please amend the paragraph beginning at line 12 as follows:

Accordingly, in an example where an inspected pixel for R channel corresponding to a certain image-pickup point within incident light to be imaged is assumed to have a white ~~noise-defect~~, it is considered that a difference value between a signal level of the inspected pixel of R channel and an average value of signal levels of surrounding pixels thereof is relatively large as described above, and a difference value between a signal level of a pixel of G channel corresponding to the image-pickup point and an average value of signal levels of surrounding pixels thereof and a difference value between a signal level of a pixel of B channel and an average value of signal levels of surrounding pixels thereof are relatively small even in either case of G and B channels.

Page 23, please amend the paragraph beginning at line 19 as follows:

Further, control as to whether correction is made for each defective pixel in accordance with a defect signal level of a detected defective pixel or not can be made externally and the defect signal level of the defective pixel or the correction coefficient for the defective pixel correction can be changed in accordance with image conditions (presence of storage, storage time, degree of video gain and the like). For example, a white ~~noise-defect~~ detection level (W) can be changed in accordance with a storage time so that increased and reduced white ~~noise-defect~~ caused by change of the storage time can be corrected properly. In such a manner, correction in accordance with conditions of the imaged picture can be made.